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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,596	08/06/2008	Joachim Simon	CH-8467/LeA 36,906	1662
7590 Nicanor A. Kohncke LANXESS Law & Intellectual Property Department 111 RIDC Park West Drive Pittsburgh, PA 15275-1112			EXAMINER SERGENT, RABON A	
			ART UNIT	PAPER NUMBER
			1765	
			MAIL DATE	DELIVERY MODE
			11/17/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/586,596

Applicant(s)

SIMON ET AL.

Examiner

Rabon Sergeant

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-SB08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Firstly, applicants have failed to clearly specify bases for the claimed weight percents associated with the TDI isomer mixtures and residual TDI monomers. Despite applicants' response, the claims continue to fail to clearly specify the bases necessary to clearly and unambiguously define the claimed weight percents. Though applicants state that one skilled in the art would understand how to interpret the weight percents, such a position is purely speculative and cannot substitute for the recitation of the bases.

Secondly, with respect to claim 5, as amended, it is unclear to what "its" refers. It is unclear if the word refers to the plastisol or the solution or some other entity.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any

evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 3-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Breidenbach et al. ('729).

Breidenbach et al. disclose the use of isocyanurate solutions derived from toluene diisocyanate and containing plasticizers, as solvents, as adhesion improvers within PVC coatings, wherein the use of TDI isomer mixtures having 80 percent by weight of the 2,4-TDI isomer are preferred. Furthermore, applicants disclose the preferred use of dioctyl phthalate as the plasticizer/solvent, which correspond to applicants' claimed dialkyl phthalate component, and catalysts which correspond to applicants' claimed catalysts. See abstract; column 3, lines 9-14 and 42+; column 4; column 5, lines 5-24; column 6, line 65; and Examples 9, 11, and 14. Applicants' claimed residual TDI monomer contents and viscosities are disclosed within the aforementioned examples. Furthermore, given that patentees employ applicants' claimed components and processing method and given the fact that the disclosed solutions and the instant solution are used for the same purpose, the position is taken that the claimed solids content is an inherent feature of the disclosed solutions. Still, even if not inherently possessed, the position is taken that it would have been obvious to formulate the solutions having the claimed solids content, since the claimed content is within the range disclosed by patentees within column 5, lines 18-24.

4. A rejection under 35 USC 102 as being anticipated or alternatively under 35 USC 103(a) is proper when the reference discloses all the limitations of a claim except a property or function, and the examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention but has basis for shifting the burden of proof to applicant as in *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § 2112- 2112.02.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breidenbach et al. ('729).

As aforementioned, Breidenbach et al. disclose the use of isocyanurate solutions derived from toluene diisocyanate and containing plasticizers, as solvents, as adhesion improvers within PVC coatings, wherein the use of TDI isomer mixtures having 80 percent by weight of the 2,4-TDI isomer are preferred. Furthermore, applicants disclose plasticizers derived from aromatic dicarboxylic acids and branched aliphatic alcohols, wherein the preferred use of dioctyl phthalate as the plasticizer/solvent is further disclosed. Also, patentees disclose catalysts which correspond to applicants' claimed catalysts. See abstract; column 3, lines 9-14 and 42+; column 4; column 5, lines 5-24; column 6, line 65; and Examples 9, 11, and 14. Applicants' claimed residual TDI monomer contents and viscosities are disclosed within the aforementioned examples. Furthermore, patentees disclose a range of solids contents that encompass that claimed by applicants; therefore, it would have been obvious to practice the invention using the claimed solids content.

6. Though patentees fail to specifically disclose the use of diisononyl phthalates as the plasticizer/solvent, the position is taken that their use would have been *prima facie* obvious,

since they are encompassed by the description of suitable plasticizers and since they are structurally similar to the preferred dioctyl phthalates to such an extent that the skilled artisan would have reasonably expected them to have similar properties and therefore be functionally equivalent. *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See MPEP 2144.09 (I).

7. Applicants' argument that the instant claims are distinguished from the prior art, because in the instant claims only TDI isomers are employed while in Breidenbach et al. mixtures of TDI isomers and MDI isomers are employed, is without merit. Despite applicants' argument, the instant claims cannot in any way be construed to exclude other isocyanates, such as the argued MDI isomers. There is no language whatsoever within the claims that limits the claims as argued. Applicants' argument concerning the unexpected properties possessed by the solutions according to instant claim 1 has been considered; however, the claims are not commensurate in scope with the arguments or the examples within the specification for the aforementioned reason that the claims fail to exclude other components or reactants, such as the argued MDI reactants of the reference. It has been held that the claims must be commensurate in scope with any showing of unexpected results. *In re Greenfield*, 197 USPQ 227. It has further been held that a limited showing of criticality is insufficient to support a broadly claimed range. *In re Lemin*, 161 USPQ 288.

8. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 10229780 A1 (English language equivalent: US 6,936,678 B2) or Brahm et al. (US 2004/0006228 A1), each in view of Breidenbach et al. ('729).

Each of the primary references discloses the production of low TDI monomer containing isocyanurates, wherein TDI containing 80 percent of the 2,4-TDI isomer is reacted in the presence of a solvent and a Mannich catalyst to produce an isocyanurate product having applicants' claimed free TDI monomer content, viscosity, and solids content. See Examples 1 and 2 within each reference. Though the solvent of the examples is not a dialkyl phthalate, it is disclosed within each reference that plasticizers such as phthalates may be utilized. See column 3, line 55 within US 6,936,678 B2 and paragraph [0028] within Brahm et al.

9. Though each of the primary references discloses that phthalate plasticizers may be used as the solvent, these references fail to disclose applicants' claimed dialkyl phthalate. Still, the use of dialkyl phthalates that correspond to those of applicants as solvents for TDI derived isocyanurates, to be used within PVC coating compositions, was known at the time of invention. This position is supported by the teachings of Breidenbach et al. within column 3, lines 42+ and the examples, wherein dioctyl phthalate is specifically recited. Therefore, in accordance with the aforementioned teachings within the primary references, the position is taken that it would have been obvious to utilize the instantly claimed solvents within the methods of the primary references so as to arrive at the instant invention.

10. With respect to claim 2, though Breidenbach et al. fail to specifically disclose the use of diisononyl phthalates as the plasticizer/solvent, the position is taken that their use would have been *prima facie* obvious, since they are encompassed by the description of suitable plasticizers within Breidenbach et al. and since they are structurally similar to the preferred (exemplified) dioctyl phthalates to such an extent that the skilled artisan would have reasonably expected them

to have similar properties and therefore be functionally equivalent. *In re Payne*, 606 F.2d 303, 313, 203 USPQ 245, 254 (CCPA 1979). See MPEP 2144.09 (I).

11. Regarding DE 10229780 A1 and Brahm et al., applicants have argued that the working examples of the US '678 patent and Brahm et al. only use butyl acetate as a solvent and the use of dialkyl phthalates is not suggested. However, applicants' argument fails to appreciate the fact that phthalates are disclosed within the references as being suitable for use as solvents. Therefore, despite applicants' argument, the position is taken that these disclosures in combination with the teachings of the secondary reference are adequate to render the use of the instantly claimed dialkyl phthalates *prima facie* obvious. Applicants' arguments concerning the properties of the solutions of the instant claims have again been considered; however, they are deficient for the same reasons given above within paragraph 7. There is insufficient evidence of record to establish that unexpected results have been established for the scope of the instant claims. Lastly, applicants' argument concerning the "ongoing trimerization" of Brahm et al. is neither understood nor seen to be particularly relevant, since applicants' claims do not exclude such a step.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to R. Sergeant at telephone number (571)272-1079.

/Rabon Sergeant/
Primary Examiner, Art Unit 1765